

WHAT IS CLAIMED IS:

1. A transmission gear with a dog clutch gear in which the dog clutch gear has clutch teeth formed on an outer circumferential surface of a ring part and tapered inversely so that the tooth thickness of each tooth decreases gradually from a chamfer portion at a tip end toward a base end portion thereof, and the dog clutch gear is integrally fitted onto a boss portion of said transmission gear which portion is coaxially and integrally formed on a side surface of said transmission gear,

characterized in that

a flange is provided on said ring part to be located on the side corresponding to the base end portion of the clutch teeth, and

plurality of interfaces between said ring part and said transmission gear is performed by welding.

2. A transmission gear with a dog clutch gear according to claim 1, wherein

said plurality of interfaces between said ring part and said transmission gear are simultaneously welded.

3. A transmission gear with a dog clutch gear in which the dog clutch gear has clutch teeth formed on an outer circumferential surface of a ring part and tapered inversely so that the tooth thickness of each tooth decrease gradually from a chamfer portion at a tip end toward a base end portion thereof, and the dog clutch gear is integrally fitted onto a boss portion of said transmission gear which portion is coaxially and integrally formed on a side surface of said transmission gear,

characterized in that

a flange is provided on said ring part to be located on the side corresponding to the base end portion of the clutch teeth, and

welding a first interface between an inner circumferential surface of said ring part and an outer circumferential surface of said boss portion and a second interface between a lower surface of said flange and the side surface of the transmission gear are performed by welding.

4. A transmission gear with a dog clutch gear according to claim 3, wherein

said first and second interfaces are simultaneously performed by welding.

5. A transmission gear with a dog clutch gear according to claim 4, wherein

an outer diameter of said flange is rendered equal to the maximum diameter of said clutch teeth.

6. A transmission gear with a dog clutch gear according to claim 4, wherein

the outer diameter of said flange is rendered greater than the maximum diameter of said clutch teeth.

7. A transmission gear with a dog clutch gear according to claim 5, wherein

an annular groove whose inner wall surface is continuous with an outer circumferential surface of said boss portion and whose outer wall surface has the diameter equal to the outer diameter of the flange is formed on the side surface of said transmission gear.

8. A transmission gear with a dog clutch gear according to claim 6, wherein

an annular groove whose inner wall surface is continuous with an outer circumferential surface of said boss portion and whose outer wall surface has the diameter equal to the outer diameter of the flange is formed on the side surface of said transmission gear.

9. A transmission gear with a dog clutch gear according to claim 5, wherein

an annular groove whose inner wall surface is continuous with an outer circumferential surface of said boss portion and whose outer wall surface has the diameter greater than the outer diameter of said flange is formed on the side surface of said transmission gear.

10. A transmission gear with a dog clutch gear according to claim 6, wherein

an annular groove whose inner wall surface is continuous with an outer circumferential surface of said boss portion and whose outer wall surface has the diameter greater than the outer diameter of said flange is formed on the side surface of said transmission gear.

11. A method of manufacturing a transmission gear with a

dog clutch gear characterized by comprising:

separately forming a dog clutch gear and a transmission gear, wherein

said dog clutch gear has clutch teeth formed on an outer circumferential surface of a ring part and tapered inversely so that the tooth thickness of each tooth decreases gradually from a chamfer portion at a tip end toward a base end portion thereof, a flange is provided on said ring part to be located on the side corresponding to said base end portion of said clutch teeth, and said transmission gear has a boss portion which is coaxially and integrally formed on a side surface of said transmission gear;

fitting said dog clutch gear onto said boss portion of said transmission gear; and

simultaneously performing welding between said ring part and said boss portion and welding between said flange and the side surface of said transmission gear.

12. A transmission gear with a dog clutch gear characterized in that a dog clutch gear and a transmission gear are formed separately, wherein

said dog clutch gear has clutch teeth formed on an

outer circumferential surface of a ring part and tapered inversely so that the tooth thickness of each tooth decreases gradually from a chamfer portion at a tip end toward a base end portion thereof, a flange is provided on said ring part to be located on the side corresponding to said base end portion of said clutch teeth, and said transmission gear has an axial hole that matches said flange;

the transmission gear is fitted onto said flange of said dog clutch gear; and

welding between the transmission gear and the flange is performed on both side surfaces of said transmission gear.

13. A method of manufacturing a transmission gear with a dog clutch gear characterized by comprising:

separately forming a dog clutch gear and a transmission gear, wherein

said dog clutch gear has clutch teeth formed on an outer circumferential surface of a ring part and tapered inversely so that the tooth thickness of each tooth decreases gradually from a chamfer portion at a tip end toward a base end portion thereof, a flange is provided on

said ring part to be located on the side corresponding to said base end portion of said clutch teeth, and said transmission gear has an axial hole that matches said flange;

fitting the transmission gear onto said flange of said dog clutch gear; and

performing welding between said transmission gear and the flange on both side surfaces of said transmission gear simultaneously.